

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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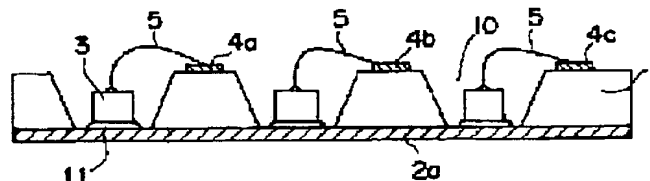
APPLICATION DATE : 21-06-94  
APPLICATION NUMBER : 06138600

APPLICANT : SHARP CORP;

INVENTOR : OKAZAKI ATSUSHI;

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TITLE : THIN TYPE LED DOT MATRIX UNIT



ABSTRACT : PURPOSE: To provide a thin type LED dot matrix unit enabling to achieve high definition and low profile while improving the heat radiating efficiency of LED chips.

CONSTITUTION: A first metallic layer 2a blocking the aperture parts of through holes 10 provided on the rear surface of an insulating substrate 1 having the through holes 10 arranged in matrix form. Next, LED chips 3 are respectively fixed to the first metallic layer 2a in the through holes 10 of the insulating substrate 1 using a conductive paste 11. Next, the second layers 4a, 4b, 4c are provided on the front side of the insulating substrate 1 excluding the aperture parts of the through holes 10. Finally, the second metallic layers 4a, 4b, 4c are connected to LED chips 3 by metallic fine wires 5.

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